DOCUMENT RESUME

ED 285 931 UD 025 721

TITLE	George Washington High School Biliteracy Skills Development Program 1985-1986. OEA Evaluation Report.
INSTITUTION	New York City Board of Education, Brooklyn, N.Y. Office of Educational Evaluation.
SPONS AGENCY	Department of Education, Washington, DC.
PUB DATE	86
GRANT	GOO-830-2655
NOTE	54p.; Prepared by the OEA Bilingual Education Evaluation Unit. For related doucments, see ED 269 523 and ED 270 544.
PUB TYPE	Reports - Evaluative/Feasibility (142)
EDRS PRICE	MF01/PC03 Plus Postage.
DESCRIPTORS	Academic Achievement; Acculturation; *Bilingual Education Programs; *Dominicans; English (Second Language); High Schools; Hispanic Americans; Immigrants; *Literacy Education; Native Language Instruction; *Program Effectiveness; Urban Education
IDENTIFIERS	*New York (New York)

ABSTRACT

The Biliteracy Skills Development Project at George Washington High School (New York, New York) completed its final year of a three-year funding cycle in June 1986. Using a mini-school structure, the program sought to enable students to develop oral proficiency in English and literacy skills in both English and Spanish through intensive language instruction. The program served 221 students, most of whom were semi-literate (in Spanish) recent arrivals from the Dominican Republic. Students received intensive English as a Second Language (ESL) instruction, native language skills instruction, and bilingual instruction in content areas. Efforts were made to keep curricula and materials in the program courses parallel with those of mainstream courses, and the program included staff support (e.g., computer training) and parent education. In 1985-86, the project underwent several personnel and curriculum changes. A Literacy Assistance Project (LAP) was launched to plan further improvements in George Washington's bilingual education program. An evaluation of this year found that students were making good progress as a result of their involvement in the intensive language component of the program, and all program instructional goals were met. Bilingual students were considered better motivated and had better school attendance records than mainstream students, and the bilingual program received recognition within and outside the school for its student achievement. This evaluation report includes recommendations for improving the program's effectiveness and four appendices providing data on staff and course characteristics. (KH)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED285931

GEORGE WASHINGTON HIGH SCHOOL

BILITERACY SKILLS DEVELOPMENT PROGRAM

1985-1986

OEA Evaluation Report

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Richard Ehrenberg
N.Y.C. Bd. of Ed.

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

- This document has been reproduced as received from the person or organization originating it.
- Minor changes have been made to improve reproduction quality.

- Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

O.E.A. Evaluation Section Report

Robert Tobias, Administrator of Evaluation
Judith S. Torres, Senior Manager

Grant Number: G00-830-2655

GEORGE WASHINGTON HIGH SCHOOL

BILITERACY SKILLS DEVELOPMENT PROGRAM

1985-1986

Principal:
Ms. Annis L. Laird

Director:
Mr. Wilfredo Alverio

Prepared by the

O.E.A. Bilingual Education Evaluation Unit

Armando Cotayo, Evaluation Manager
Jose J. Villegas, Evaluation/Planning Specialist
Shelley M. Fischer, Evaluation/Planning Specialist
Margaret H. Scorza, Editorial/Production Coordinator
Celia Alvarez, Evaluation Consultant
Maria Grazia Asselle, Evaluation Consultant

New York City Public Schools
Office of Educational Assessment
Richard Guttenberg, Director

It is the policy of the Board of Education not to discriminate on the basis of race, creed, national origin, age, handicapping condition, sexual orientation, or sex, in its educational programs, activities, and employment policies, as required by law. Any person who believes he or she has been discriminated against should contact: Carole Guerra, Local Equal Opportunity Coordinator, Office of Educational Assessment, 110 Livingston Street, Room 743, Brooklyn, New York 11201. Inquiries regarding compliance with appropriate laws may also be directed to: Mercedes A. Nesfield, Director, Office of Equal Opportunity, 110 Livingston Street, Room 601, Brooklyn, New York; or the Director, Office of Civil Rights, U.S. Department of Education, 26 Federal Plaza, Room 33-130, New York, New York 10278.

A SUMMARY OF THE REPORT

The Biliteracy Skills Development Project atGeorge Washington High School completed its final year of a three-year funding cycle in June 1986. Using a mini-school structure, the program sought to enable students to develop oral proficiency in English and literacy skills in both English and Spanish through intensive language instruction. The program served 221 students, most of whom were semi-literate (in Spanish) recent arrivals from rural areas of the Dominican Republic.

Students received intensive English as a second language (E.S.L.) instruction in comprehension, oral proficiency, reading, and writing for at least three periods per day during their first year, two periods during their second year, and one period during their third year in the program. Native-language skills were also developed through a similarly intensive approach. In addition, students studied content areas in Spanish, with progressively more English introduced at the higher levels, until they scored at or above the twentieth percentile on the English version of the Language Assessment Battery (LAB) test.

The use of a mastery learning approach entailed close coordination between the program's native language, E.S.L., and content-area components. In keeping with the program's goals and its target population (functionally illiterate in Spanish and English), curricula and materials used in the Title VII classes were of comparable quality to, but not parallel with, mainstream classes. Support services for program students included academic and personal guidance provided by the project director, bilingual guidance counselor, bilingual grade advisor, program secretary, and paraprofessionals. Home visits, telephone contacts, and outside referrals for students with specific problems (health, eye-care, child-abuse) were made by family assistants.

Title VII funding for the program's administrative and support staff was supplemented by basic tax-levy, Chapter I, P.S.E.N. (Pupils with Special Educational Needs), and New York City Module 5B funds for the program's instructional and support services component.

In 1985-86, the program underwent several personnel changes. A LAB coordinator was hired to oversee LAB testing, keep records, and write reports. In addition, a new secretary was hired to replace the former one, who had started teaching in the bilingual program after graduating from the City University of New York. The project coordinator, in his second year in the position, assumed responsibility for both the 238 LEP students in the Title VII project and the remaining 800 bilingual students in the school's tax-levy bilingual program. The assistant principal (A.P.) of foreign languages (who had been the program's coordinator) continued to work closely with the project.

Although the project coordinator did not have A.P. status, project implementation did not suffer. Meetings between the project coordinator, the subject-area A.P.s, and the principal created an environment that was conducive to bilingual education.

In 1985-86, the social studies department introduced a new, bilingual civics elective. In 1986-87, the bilingual program planned to offer courses in American history and integrated math. In addition, the bilingual program made significant additions to its curricular holdings in science and social studies and reorganized its resource-room library. Three MacIntosh personal computers were also purchased in 1985-86 for the bilingual resource room.

In collaboration with the New York Bilingual Education Multifunctional Support Center (BEMSC), the principal, the bilingual program staff, and the subject-area A.P.s launched a Literacy Assistance Project (LAP). LAP's function was to plan improvements in George Washington's bilingual education program. Areas of special interest during LAP's first year included: 1) developing methods to better inform and involve parents in the bilingual program; 2) developing peer tutoring between bilingual program and literacy program students; 3) increasing bilingual students' access to the school's computers; 4) improving the utilization of paraprofessionals in the classroom; and 5) programming more time for project teachers to do educational planning and curriculum design. LAP was judged a success by both BEMSC and George Washington High School and will be continued in 1986-87.

Title VII students spent most of their school day receiving intensive language instruction. Although it was possible for them to take additional electives in their second and third years, many were prevented from doing so by scheduling problems. Concern continued about the length of time it would take program students to finish content-area courses that complemented the school's mainstream program and to graduate. But according to program staff, their slower-than-normal progress towards graduation was understandable in light of their educational deficits.

Discussions with the program coordinator and a spot-check of student records revealed that in terms of their starting levels, students were making good progress in the program. The majority took upper-level Spanish classes in the spring semester and proceeded normally through the E.S.L. and bilingual math sequences. Some were starting to take science and history classes in the tenth grade, while others were moving into mainstream sequential math and American history. Still, records indicated that although some eleventh-grade Title VII students would graduate at the end of four years, most would take a longer time. The bilingual grade advisor pointed out that the only reason they would graduate at all was that they could take content-area courses in their native language while simultaneously learning English. Bilingual students were considered better motivated and had better school attendance records than mainstream students.

The bilingual program received recognition within and outside the school for the achievements of its students. Two student organizations, the Graffiti Busters and a recently formed Pan American Club, have contributed greatly to the high visibility of bilingual students. For the second year in a row, the Graffiti Busters were honored by City Hall for their community involvement. This year they received a $500 award from the mayor in recognition of their six community-based projects: a subway mural

project, a Safe Water Project, a Liberty Transformed Sculpture Project (undertaken in collaboration with the Metropolitan Museum of Art), an Abandoned Auto Project, a Team-Up to Pick Up Cans Project, and a Welcome to Washington Heights Project. The Pan American Club sponsored a dance, featuring a prominent star from the Dominican Republic, which succeeded in collecting enough money to set up a scholarship fund. Although the majority of the students who participated in these activities were from the larger tax-levy bilingual program, some Title VII students did participate in these activities.

In March, a ceremony was held in recognition of the bilingual honor society during Open School Evening (parents' night). Five Title VII students received awards that night for their achievements. In addition, for the first time there was a bilingual honor roll for Title VII students. To reward and promote outstanding academic achievement the school administration decided to create an honor school for mainstream and bilingual students. The honor school's bilingual component will include both Title VII and regular bilingual students. The staff of the bilingual program was heavily involved in the planning of the bilingual honor school.

There were staff-development activities in the areas of administration, curriculum, and resource development. Under the direction of a bilingual consultant, a series of meetings were held to discuss administrative and organizational problems. In addition, the project coordinator spoke to the principal's cabinet on the need for incorporating instruction in morals, ethics, and values into the curriculum. Staff members also attended a variety of extramural conferences. For example, a social studies teacher presented a paper on the need for teachers to know more about their students' native cultures to a conference sponsored by Chemical Bank on issues affecting the New York City high schools. As a result of his talk, Chemical Bank agreed to sponsor a trip to Santo Domingo for six teachers.

This year, all bilingual program staff members received training in the use of microcomputers: the project coordinator attended a session on computers at the BEMSC-Hunter College; teachers participated in a word-processing workshop at Teachers College; two paraprofessionals attended a computer course at the Bronx Technical Center; and the project secretary was trained in the use of the MacIntosh by the program's bilingual consultant.

The parents of program students participated in a variety of school-wide activities. Several parents took G.E.D./E.S.L. classes that were offered on a weekly basis. The Parents Association continued to hold cultural events on the last Sunday of every month. Five to ten parents regularly attended the semi-semesterly meetings of the Parent's Advisory Committee. Parental input was an important factor in the ongoing expansion of bilingual offerings for George Washington students.

Despite problems in its final year, the project made significant progress in creating a more coherent and integrated bilingual literacy program. Everyone interviewed agreed that the program is a necessity if

George Washington is to meet the needs of the growing numbers of semi-literate students entering the school each year. The bilingual staff was committed to developing an ethos of hard work, discipline, and self-respect among its students. Their acculturation to the American educational system and the larger society was accomplished with sensitivity to and empathy for their needs and problems, and with respect for their culture and language.

Project objectives were assessed in English Language development (Criterion Referenced English Syntax Test [CREST]); mathematics, science, and social studies (teacher-made tests) in the spring semester; Spanish language (La Prueba de Lectura); and attendance. Quantitative analysis of student achievement data indicates that:

-- Program students mastered an average of 3.9 CREST objectives in the fall and 4.3 in the spring, thus meeting the program objective.

-- Students made significant improvement in Spanish on La Prueba de Lectura, thus meeting the program objective.

-- In the spring semester, program students achieved passing rate in mathematics and social studies as high as those of mainstream students, thus meeting the program objective in those areas, but not in science.

-- The attendance rate of program students was significantly higher than that of mainstream students, thereby meeting the program objective.

The following recommendations are aimed at improving the program's effectiveness:

-- Continued staff development activities across departmental lines are encouraged in order to create a more consistent instructional program for incorporating semi-literate students into the academic and social milieu of the high school. This year's Literacy Assistance Project played an important role in this process; its continuation is highly desirable.

-- The program and its students should be made more visible within both the bilingual and the mainstream programs. Although there were significant improvements in this area this year, continued efforts need to be made to make the program and its students even better known.

-- Greater efforts at tracking the progress and status of Title VII students is needed in order to assess the program's effectiveness in meeting its students' needs.

-- Efforts to increase the bilingual content-area curricular resources should continue. Specifically, in cooperation with the subject-area A.P.s, the project coordinator should continue seeking texts

that are appropriate to the special needs of this student population, and which can be used both at home and in school.

-- Paraprofessionals play a critical role in the development of this program. To enhance their classroom performance, opportunities should be found for them to participate in professional meetings and conferences on the teaching of illiterate students.

-- In content-area classes in which the dual language approach is used, content material should be reinforced in both languages to insure student comprehension.

ACKNOWLEDGEMENTS

The production of this report, as of all Office of Educational Assessment/Bilingual Education Evaluation Unit reports, is the result of a cooperative effort of regular staff and consultants. In addition to those whose names appear on the cover, Eulalia Cabrera has interpreted findings and has integrated material into reports. Arthur Lopatin has edited the reports following the O.E.A. style guide and has written report summaries. Finally, Joseph Rivera, Marcia Gilbert, Bruce Roach, Gladys Rosa, and Martin Zurla have worked intensively as word processors to produce and correct reports. Without their able and faithful participation, the unit could not have handled such a large volume of work and still produced quality evaluation reports.

TABLE OF CONTENTS

		PAGE
I.	INTRODUCTION	1
II.	STUDENT CHARACTERISTICS	3
III.	FINDINGS	6
	English as a Second Language	6
	Native Language Arts	13
	Content-Area Subjects	17
	Attendance	24
	Parental Involvement	26
	Staff Development	26
IV.	CONCLUSIONS AND RECOMMENDATIONS	29
	Conclusions	29
	Recommendations	32
V.	APPENDICES	35

LIST OF TABLES

		PAGE
Table 1:	Number and Percent of Program Students by Country of Birth.	4
Table 2:	Number of Program Students by Age and Grade.	5
Table 3:	Results of the Criterion Referenced English Syntax Test.	12
Table 4:	Results of La Prueba de Lectura.	16
Table 5:	Passing Rates in Content-Area Subjects.	22
Table 6:	Comparison of Program and Mainstream Students' Passing Rates in Content-Area Subjects.	23
Table 7:	Number of Students Leaving the Program.	25

BILITERACY SKILLS DEVELOPMENT PROGRAM
GEORGE WASHINGTON HIGH SCHOOL

Location:	549 Audubon Avenue New York, New York 10040
Year of Operation:	1985-86, Final year of a three-year funding cycle
Languages of Instruction:	Spanish and English
Number of Participants:	221 students of limited English proficiency
Principal:	Annis L. Laird
Program Coordinator:	Wilfredo Alverio

I. INTRODUCTION

During the 1985-86 school year, the third and final year of Title VII funding, the Biliteracy Skills Development Program at George Washington High School served 221 Hispanic students classified as limited English proficient (LEP) as a result of their performance on the English version of the Language Assessment Battery (LAB). The program sought to help students develop oral proficiency in English and literacy skills in both Spanish and English through intensive language instruction.

The Biliteracy Skills Development Program was a complement of the high school's bilingual program, which served 800 additional students. The project's coordinator reported directly to the principal and regularly consulted with the A.P.s for foreign language, English as a second language (E.S.L.), mathematics, social studies, and science, as well as with a project consultant. Several personnel changes occurred in 1985-86. A new LAB coordinator was appointed to oversee LAB tests, keep records, and report data for the Bilingual Education Student Information Survey. In

addition, a replacement was found for the former program secretary who had completed her undergraduate studies and started teaching native language arts to Title VII students. The project coordinator, in his second year, continued working closely with the A.P. of foreign languages, who had preceded him as coordinator.

The program staff included the bilingual program coordinator, a family assistant, three paraprofessionals, and a secretary funded by Title VII. Other staff members included two guidance counselors, one grade advisor, one family assistant, a project consultant, and a parent trainer (who offered General Equivalency Diploma and E.S.L. classes), all of whom were supported by tax-levy funds. Instructional staff included 13 E.S.L. teachers, six native language arts teachers, and four bilingual content-area teachers funded by a combination of tax-levy, Chapter I, P.S.E.N. (Pupils with Special Educational Needs), and New York City Module 5B (bilingual education) funds. All staff members were licensed or certified in their specialty and had extensive bilingual-education experience. (Appendix A sets forth the educational qualifications, work experience, and percentage of work time spent in program activities.)

Unlike the situation in 1984-85, the program was not hindered in 1985-86 by the fact that the coordinator was not an A.P. This was because meetings between the project coordinator, A.P.s from the various departments (E.S.L., foreign languages, mathematics, social studies, and science), and the principal created a more supportive environment for bilingual education throughout the school.

II. STUDENT CHARACTERISTICS

The project served a target population of 238 Hispanic students, most of whom were recent arrivals from rural areas of the Dominican Republic and other Latin American countries. (See Table 1.) All were eligible for free lunch, indicating that they came from low-income families.

Students were admitted to the program based on their scores on the Language Assessment Battery (LAB) test (below the twentieth percentile) and La Prueba de Lectura (below 50 percent). Oral proficiency in Spanish and English was also measured using the Foreign Service Interview. To gain additional information on students' cultural and economic backgrounds, a program-developed questionnaire was also used.

The program included students who were most at risk of becoming dropouts because of poor academic performance (many had had limited formal schooling), or age (many were 17-21 years old). Most (87 percent) of the students were overage for their grade placement, especially in grades nine (96 percent) and ten (91 percent). The number of students decreased by grade from 102 students in grade nine to three in grade twelve. (Table 2 presents the program students by age and grade.) Fifty-eight percent of the students in the program were male; 41 percent were female.

According to program staff, students needed considerable counseling to help them adjust academically and socially to high school. The program coordinator spent a great deal of time planning and organizing activities to help students set realistic goals, learn about contemporary American culture, and learn appropriate behavior in the high school environment.

Several bilingual counselors mentioned the need for additional support services in order to fully meet the needs of this growing segment of the

school's population. The students' domestic problems, stemming from economic instability and frequent family moves, needed to be addressed as much as their special academic needs.

TABLE 1

Number and Percent of Program Students
by Country of Birth

Country of Birth	Number	Percent
Dominican Republic	208	95.4
Central and South America	9	4.1
Spain	1	less than 1
TOTAL*	218	100.0

*Data for three students were missing.

- Ninety-five percent of the students were born in the Dominican Republic.

TABLE 2

Number of Program Students by Age and Grade

Age	Grade 9	Grade 10	Grade 11	Grade 12	Total
14	0	0	0	0	0
15	1	1	0	0	4
16	21	6	1	0	29
17	35	20	14	1	69
18	25	29	10	2	66
19	12	12	5	0	29
20	4	5	4	1	14
21	1	2	1	0	4
22	0	2	0	0	2
TOTAL	102	77	35	3	217

Overage Students					
Number	98	70	20	1	189
Percent	96	91	57	33	87

Note: Shaded boxes indicate expected age range for grade.

- Eighty-seven percent of the program students were overage for their grade placement.
- The highest percentage (96 percent) of overage students was in grade nine.
- The percentage of overage students decreased as grade level increased.

III. FINDINGS

This report evaluates objectives measurable by standardized tests and those assessable through an examination of program material and records, on-site observations, interviews with program and other school personnel, and a questionnaire completed by the project director. The following are the objectives for the present year as proposed to and accepted by the Office of Bilingual Education and Minority Languages Affairs, U.S. Department of Education.

ENGLISH AS A SECOND LANGUAGE

-- The students enrolled in English as a second language will master four or more objectives per semester on the Criterion Referenced English Syntax Test (CREST).

Program students received intensive E.S.L. instruction in four skill areas: comprehension, oral proficiency, reading, and writing. Because the program was targeted at semi-literate students, they were programmed for three periods of E.S.L. per day during their first year in the program. In their second year, they took two periods of E.S.L. per day, and in their third year, one period. In light of recent findings demonstrating a positive correlation between increased oral proficiency and the development of other second-language skills (and an improved self-image), E.S.L. classes emphasized oral proficiency as well as literacy. (Appendix B presents the details of E.S.L. instruction for both fall and spring.) To further enhance English proficiency, bilingual content-area courses used progressively more English.

E.S.L. classes were conducted by teachers supported by tax-levy, Chapter I, P.S.E.N., and New York City Module 5B funds. One tax-levy and three Title VII paraprofessionals were available for the program's classes.

An important development in 1985-86, was the launching of the Literacy Assistance Project (LAP) to provide support to the A.P. and teachers of E.S.L. who worked with the program's semi-literate target population. LAP developed out of the participation last June of George Washington's bilingual program staff, the A.P. of foreign languages, and teachers from the foreign language and E.S.L. departments in a two-day literacy-education workshop at Teachers College. As a result of this meeting, staff from the Teachers College branch of the New York Bilingual Education Multifunctional Support Center (BEMSC) met regularly throughout the year with the bilingual program staff and coordinator, teachers, the A.P.s from various departments, and the principal to discuss ways of improving the program. Curriculum development, parental involvement, staff development, program management and evaluation, peer tutoring, and the computer as an educational tool were all discussed.

LAP provided the context for a very fruitful collaboration between BEMSC staff members and the A.P. and E.S.L. teachers who worked with Title VII students at George Washington. This collaboration took the form of classroom visits by BEMSC staffers, followed by discussions and planning sessions. Ways of securing external funds for the purchase of E.S.L. and Spanish literacy materials, the critical role of paraprofessionals in literacy education, and the scheduling of joint planning meetings of E.S.L. and N.L.A. teachers were the main areas of concern. Members of LAP also discussed their ideas on the development of a high-quality bilingual

literacy-education curriculum with the Bilingual/E.S.L. Unit of the Division of High Schools of the Board of Education. Both George Washington faculty and BEMSC staffers thought LAP had gotten off to a very good start, and it will be continued in 1986-87.

Students in the Title VII program continued to spend most of the school day in intensive language courses and in bilingual content-area courses that complemented the regular curriculum.

In order to better address the needs of semi-literate students, a new E.S.L. class which precedes E.S.L., Level 1, and is parallel to a Spanish N.L.A. class was introduced this year. This introductory class teaches the basic literacy skills (e.g. learning the alphabet) that must be developed before students can start reading and writing English. It was hoped that this course would provide students with the rudimentary skills needed to progress normally in E.S.L., Level 1.

Resources and curricular materials used in E.S.L. classes included both commercially available and teacher-made materials. In all the E.S.L. classes that were visited, students used workbooks to reinforce classroom learning.

A member of the evaluation team visited two E.S.L. classes, a Level 1 and a Level 2 class. The Level 1 class was attended by seven of an enrollment of 12 students. (Two students were absent because of a chicken-pox epidemic.) The class was the second semester of Level 1 and used the text English for a Changing World. Students participated in the class for two periods: the first was on oral language skills, the second on writing. The lesson observed was on the use of the simple past. A variety of

exercises were used to help students understand differences between regular and irregular verbs.

Initially, the base form of several regular and irregular verbs was written on the board, and students were asked to give the past form. Afterwards, all the forms were spoken in unison by the entire class. Students were then asked questions to make sure they understood the distinction between regular and irregular verbs. Their answers, which were offered eagerly, indicated a good understanding of the difference between the two kinds of verb forms. Although the teacher permitted students to answer in Spanish if they were unable to do so in English, she lectured, answered questions, and provided reinforcement in English. Employing dramatic motions to illustrate the difference between past and present, the teacher went on to give students sentences in the present tense and requested that they change them into the past. This was followed by a reading assignment from the text which reviewed the use of the past in a conversational context. Then questions were asked about the scene within which the conversation was embedded. Responding aloud, the students eagerly participated in this activity. Later, two volunteers were asked to read the conversation aloud while the remainder of the class listened to their pronunciation, expression, and the ideas being conveyed. Students were then asked to repeat the errors they had heard in pronunciation and to correct them. The two volunteers then reread the conversation, making the necessary corrections. Afterwards the teacher asked questions about conversations in order to assess the students' comprehension of the story's content. This was followed by more sentences that had to be transformed

from the present to the past. The class finally ended with a review of the three different pronunciations of the past tense ending "-ed."

Thus, the lesson was filled with many different activities which enabled students to think about tense shifting and problem solving on a multiplicity of levels. The teacher reinforced lectures with questions and exercises. The students appeared very interested and were enthusiastic participants in the class. They volunteered eagerly and were permitted to respond in Spanish if they were unable to do so in English. However, the language of the class was English. The teacher, a dynamic woman, was sensitive to the linguistic needs of her students and continually offered positive reinforcement. No paraprofessional was present -- several paraprofessionals were doing administrative work the day the class was visited.

Although some Title VII students attended the Level 2 class that was observed, the class was not composed entirely of such students.

The third period of an E.S.L.-reading class was also observed. Students in this class had classroom instruction with one teacher for two periods and then received individualized instruction in reading during one of the school's computer labs during the third period. Individualized E.S.L. reading diskettes were kept in the lab and used under the supervision of another teacher. Students worked at the computers independently and at their own pace. Throughout the year they worked their way through Levels 1-6 of the individualized E.S.L. reading program. Grades were based on written tests taken after each unit. Several students who had reached Level 6 were members of the group that was observed, including one Title VII student who had arrived in the United States a year and a half ago. He had been at George Washington for one year. The language of the class was

English, with all materials written in English. Although a paraprofessional was assigned to the class, she was not present that day.

Student Achievement in E.S.L.

The instrument used to assess achievement in this area was the Criterion Referenced English Syntax Test* (CREST). The CREST was administered at the beginning and the end of each semester. A mastery score to indicate gains was computed for each student by calculating the difference between pretest and posttest. The number of months of instruction between testings was computed for each student by multiplying the number of months between testings by the student's attendance rate. The number of skills mastered per month was calculated by dividing the mean mastery by the mean number of months of instruction between testings.

Table 4 presents the test results for students who were pretested and posttested at the same level. Of the students who were reported to be taking E.S.L. classes (levels 1, 2, and 3), complete data (levels, pretest score, and posttest score) were available for 173 students (79 percent) in the fall and 144 students (66 percent) in the spring.

Examination of Table 4 reveals that the proposed objective was achieved. In the fall, students mastered 3.9 CREST objectives, which was

*The Criterion Referenced English Syntax Test (CREST) was developed by the Board of Education of the City of New York to measure mastery of instructional objectives of the E.S.L. curricula, and thus was constructed to maximize content validity. The test contains four items per curricular objective, and mastery of an objective is achieved when three of these items are answered correctly. The test measures mastery of 25 objectives at Levels 1 and 2, and 15 objectives at Level 3. The Kuder-Richardson reliability estimates for pretest and posttest administrations of the three levels of the CREST are:

Level 1 -- pretest (.91)/posttest (.96)
Level 2 -- pretest (.94)/posttest (.95)
Level 3 -- pretest (.91)/posttest (.91).

not significantly different from the program objective of four. In the spring, students achieved 4.3 objectives.

TABLE 3

Results of the Criterion Referenced English Syntax Test

Test Level	Number of Students	PRETEST Mean	PRETEST S.D.	POSTTEST Mean	POSTTEST S.D.	MASTERY Mean	MASTERY S.D.	Mean Mastery Per Month
				FALL				
1	107	5.8	5.2	9.4	6.9	3.6	3.7	1.5
2	49	11.2	6.4	16.0	5.9	4.8	4.1	1.9
3	17	8.0	4.3	11.6	3.0	3.6	3.4	1.4
TOTAL	173	7.6	6.0	11.5	6.9	3.9	3.8	1.6
				SPRING				
1	69	7.4	5.8	11.6	7.1	4.2	4.6	1.6
2	47	10.1	5.0	15.5	4.2	5.4	3.8	1.9
3	28	10.3	3.0	12.9	2.1	2.6	1.6	.9
TOTAL	144	8.9	5.3	13.1	5.8	4.3	4.0	1.6

- The average mastery per semester was 3.9 objectives in the fall and 4.3 objectives in the spring. Since the fall mean mastery is not significantly different from the criterion, the program objective was achieved both semesters.

NATIVE LANGUAGE ARTS

-- Students receiving one full year of instruction in native language arts will significantly increase their reading in Spanish on the Prueba de Lectura.

Since the target population included individuals who were semi-literate or illiterate in their native language (Spanish), program students received one period of native-language instruction that emphasized the development of literacy skills. (Appendix C lists the native language arts classes that were offered in the fall and spring.)

It was expected that native-language instruction would improve the students' self-image, their ability to learn content areas, and their attitude toward learning English. The language skills developed at each level of instruction became progressively more complex. The goal was for students to acquire the literacy skills they needed to pass bilingual content-area courses. Instructional personnel in native language arts classes were supported by a combination of tax-levy and Chapter I funds.

A member of the evaluation team visited the beginning-level remedial Spanish class for semi-literate Spanish speakers. It was held for two consecutive periods. The first period (which was the one that was observed) was a grammar review. The second period focused on reading and writing. The teacher was assisted by a paraprofessional who worked with the least advanced students on penmanship, basic vocabulary, and writing skills.

The lesson observed then was on antonyms and synonyms. After reviewing the definition of "antonym" and "synonym," the teacher put twenty words on the board and asked students to write antonyms and synonyms for each one. The students responded enthusiastically to requests to write

their answers on the board. The class then reviewed the definition of each word, and the teacher discussed the breakdown of words into syllables, the placement of accents on each syllable, and the classification of words according to the placement of the accent. Throughout the session, the students were attentive and participated eagerly. Many raised their hands to provide examples or definitions. The teacher provided constant reinforcement and used questions to guide students' participation. She also summarized important concepts and provided comments and clarifications whenever necessary.

While the teacher taught the class, the paraprofessional tutored one of three especially poorly prepared students in the back of the classroom, using a blackboard to complete a vocabulary exercise. According to the paraprofessional, in the previous year this student could neither read nor write, but could now read at an elementary level. In order to track their progress, the paraprofessional had also maintained a file of each student's work. Students did exercises from handouts and a Multiple Skills Series text. The paraprofessional was very attentive and provided a supportive environment for the students.

Both the paraprofessional and the teacher had a good relationship with their students, and neither had any disciplinary problems in the classroom. Rather, mutual respect and caring seemed to characterize the student-teacher relationship. If a student's attention wandered, moderate admonition and humor were used to focus the student's mind on the task at hand. Both the paraprofessional and the teacher were older Hispanic women who took pride in their professions. The teacher, a parent of a George Washington graduate and former bilingual program secretary, had 14 years'

experience in bilingual/E.S.L. education. This was her first year as a teacher, having graduated with a Bachelor's degree from C.U.N.Y. the previous June.

Most of the students in the program were in upper-level (Levels 3-6) Spanish for Native Speakers classes. Although some students were ready to take elective native language classes within a short period of time, others had to repeat native language courses.

Student Achievement in Native Language Arts

The assessment instrument used to measure gains in Spanish reading and writing in Spanish was the Prueba de Lectura*, Level 3, Forms A and B, administered in the fall and the spring. Because the publishers recommend local norms and programs do out-of-level testing, analysis was based on raw score gains rather than on standard score gains. The results are presented in Table 4. Complete data on both testings were available for 106 program students (48 percent). Statistical significance of the mean gain was determined through the correlated t-test model to demonstrate whether the mean gain is larger then would be expected by chance variation alone. Because statistical significance does not provide enough descriptive information, the table also includes the proportion of students making gains.

*The Interamerican Series, La Prueba de Lectura is part of the Interamerican Series of Tests published by the Guidance Testing Associates. The purpose of this series is to measure reading achievement in Spanish for Spanish-speaking students from the western hemisphere. The norms for the test were based on a sample of students from Puerto Rico. However, as these norms may not be appropriate for students studying in other countries, the publishers recommend that local norms be developed for the test. As of this date, local norms are not available. The test has alternate form reliability coefficients ranging from .87 to .90, and validity studies indicate that the test has correlations greater than .80 with other standardized tests of reading, and correlations of about .50 with teacher grades, thus indicating construct validity.

Examination of Table 4 reveals that the program objective was achieved. Sixty-six percent of the students improved their reading achievement in Spanish, and the average improvement was statistically significant.

TABLE 4

Results of La Prueba de Lectura, Level 3

Number of Students	Pretest		Posttest		Mastery		Percentage Improving Scores
	Mean	S.D.	Mean	S.D.	Mean	S.D.	
106	53.3	16.2	58.5	15.6	5.2*	11.7	66

*Significant at the .01 level.

- Students significantly improved their scores on La Prueba de Lectura, thus meeting the program objective.

CONTENT-AREA SUBJECTS

-- Program students will attain a passing rate which is equal to or better than the rate of the school in general in the areas of science, mathematics, and social studies.

The program's eductional goals and its target population determined the nature of the content-area courses that were offered. (Appendix D details the bilingual content-area courses offered in both fall and spring.) A bilingual guidance counselor responsible for programming students pointed out that in an eight-period day, beginning level program students typically took three periods of English, two of Spanish, and one period each of gym and lunch. This left them with only one remaining period in which to take the other course requirements in mathematics, science, and social studies needed for a high school diploma. Although in principle students had more hours free to take courses needed for graduation during their second and third years in the program, in practice scheduling conflicts with program courses prevented many from doing so. Thus, concern continued over the amount of time it takes program students to complete their graduate requirements.

But program staff members maintained that, in view of their low starting level, program students were progressing very rapidly. The A.P. for foreign languages said that the basic language and survival skills provided by the program were critical in retaining school students who, because of age and educational deficiencies, were at high risk of dropping out. He maintained that the program was meeting its basic goal of developing students' ability to function successfully in contemporary American society.

Although most Title VII students took basic skills or non-Regents

(human/general biology) content-area courses, some took core courses necessary for meeting graduation requirements.

The mastery learning approach entailed coordination of the language competencies developed in native language arts classes with the various content-area curricula. A bilingual civics course had been approved as a fall social studies elective for Title VII students. This course included an overview of the functioning of local, state, and national governments, and within that context taught students how to use social service agencies in New York City. It reinforced vocabulary and language skills learned in the language classes and at the same time taught valuable survival skills.

In 1985-86, the bilingual program purchased bilingual science, social studies, and math materials to supplement the resources and curricular materials available to the program's content-area teachers. In addition, with the assistance of New York BEMSC staff, the resource-room coordinator organized the resource-room library and compiled a list of bilingual texts and resource materials available for classroom use. The project coordinator continued to investigate external sources of funds for the purchase of bilingual materials.

Three content-area classes were observed -- fundamentals of math (Level 1), non-Regents human biology, and bilingual typing.

In the fundamentals of math class, seven students were in attendance of an enrollment of 27 (the high rate of absence was ascribed to a playoff game that day). Two students arrived late and behaved in a disorderly fashion. The class that was observed was a review of the squaring of positive and negative numbers, the concepts of greater and less than, and the measurement of angles. During the class's first ten minutes, students

(many of whom were repeaters) completed an assignment that the teacher had written on the board. The paraprofessional helped students who requested it. Although the teacher attempted to elicit the students' own solutions to the problems, they tended to let themselves be guided by the teacher, who tended to make corrections. Throughout the class, problems were written on the board in English but were explained in Spanish. Consequently, it was difficult to assess how well they could understand the material without the teacher's translation. Students did not always respond to the teacher's questions,

The non-Regents human biology class that was observed had an attendance of 23 students, of an enrollment of 26. The class was devoted to a review of the human respiratory system and urinary tract. Diagrams of both were on the board and students had to point out and name the parts of each. During her review, the teacher continually referred to these diagrams. The teacher's probing questions elicited from students descriptions of how the lungs, diaphragm, chest, etc., were affected by inhaling and exhaling. Similarly probing questions were also used to elicit descriptions of the excretory functions of the urinary tract, skin, and lungs. Students were attentive and answered the teacher's questions enthusiastically. They responded primarily in Spanish, although the occasional use of English was also permitted. The lesson was taught in Spanish, but body parts were named in English as well as Spanish. The paraprofessional took attendance and assisted in disciplining students. Because of limited resources the science teacher had to improvise to supplement classroom materials. Copies of the text Fundamentos de Biologia had been given to all students to work with at home, but it was found to be too difficult for them. In response,

the bilingual project coordinator ordered a set of the more simply-written, well-illustrated text Biologia Humana. However, its limited supply and high cost prevented its use outside the classroom, so the teacher developed a set of handouts for home use. The class, which is parallel to mainstream non-Regents human biology, took the same departmental final examination as the school's mainstream non-Regents human biology classes, except in Spanish.

The bilingual typing class that was observed had thirteen students and no paraprofessional. The lesson that was observed was on use of correction paper. Instruction was given in both Spanish and English. The teacher had written the aim of the class on the board in both languages. After showing how correction paper is packaged and reviewing the relevant terminology in both Spanish and English, the teacher used Spanish to tell the class how to use it. The same instructions were also written on the board in English. Students made comments and asked questions in Spanish. They then typed a passage from their English-language text and used correction paper to make the necessary corrections. The students were orderly and participated actively in the lesson. They were primarily ninth and tenth graders. Throughout the class, the teacher usually used Spanish to present new material, give directions, and provide explanations. She introduced new business terms in English as well as Spanish, and checked to see that students remembered these new English terms. In teaching the letters of the keyboard, she also tried to introduce and reinforce the students' English vocabulary. The teacher claimed to have recognized a significant improvement in her students' knowledge of English by the end of the term.

Student Achievement in Content-Area Subjects

To assess the achievement of the objective in this area, the performance of program students was compared with that of the general school population. Statistical significance of the difference between program and mainstream passing rates was determined through a z-test for the significance of difference between two proportions*. This procedure tests whether the difference in the rates for two independent groups is greater than can be expected by chance variation.

Since mainstream data were available for the spring semester only, the comparison had to be restricted to that term. Moreover, because mainstream and program courses do not always coincide, a selection of comparable courses was made.

Table 5 presents the passing rates of program students for both semesters and for all the courses in which they were enrolled. Table 6 presents the passing rates for program and mainstream students in selected mathematics, science, and social studies courses in the spring semester.

Examination of Table 6 reveals that in the spring the program objective was met in mathematics and social studies, but not in science.

---

*Bruning, J.L. and Kintz, B.L.; Computational Handbook of Statistics; Scott, Foresman and Company, 1968.

TABLE 5

Passing Rates in Content-Area Subjects

Content Area	FALL		SPRING		TOTAL
	Number of Students	Percent Passing	Number of Students	Percent Passing	Overall Passing Rate
Mathematics[a]	171	55.6	134	44.8	50.9
Science[b]	50	86.0	64	67.2	75.4
Social Studies[c]	116	69.0	129	60.5	64.5

[a]Courses ranged from from fundamental math 1 to twelfth-year math.

[b]Courses ranged from general science to chemistry.

[c]Courses included global history A through C, American history A and B, civics, economics, and American studies.

TABLE 6

Comparison of Program and Mainstream Students' Passing Rates in Content-Area Subjects

Content Area	Number of Program Students	Percent Passing	Number of Mainstream Students	Percent Passing	Z
		SPRING			
Mathematics[a]	108	39.8	612	45.1	-1.0
Science[b]	51	58.8	263	78.3	-2.9*
Social Studies[c]	128	60.2	1,088	62.3	-0.5

*Significant at the .01 level.

[a]Includes only fundamental math 1 through 3, and sequential math.

[b]Includes only biology courses.

[c]Courses included are global history A through C, and American history A and B.

- Since program students' passing rates for mathematics and social studies were not significantly different from those of mainstream students in the spring, the program objectives were achieved in those areas, but not in science.
- Student achievement in mathematics was lowest overall, for both program and mainstream students.

ATTENDANCE

-- As a result of participating in the program, program students' attendance will be significantly higher than that of mainstream students.

Statistical significance of the difference between program and mainstream attendance rates was determined through the application of a z-test for the significance of a proportion*. This procedure tests whether the difference between one proportion (the attendance rate of program students) and a standard proportion (the overall school attendance rate) is greater than what can be expected by chance variation.

The attendance rate for program students was 88.7 percent, approximately 12 percentage points above the schoolwide attendance rate (76.6 percent). The z-test results (z=3.98) indicate that the difference in attendance rates was significant at the .01 level, thus meeting the program objective.

During 1985-86, 56 students left the program: 27 transferred to another school, 21 dropped out, seven returned to their native country, and one was mainstreamed.

---

*Bruning, J.L. and Kintz, B.L., Computational Handbook of Statistics; Scott, Foreman and Company, 1968.

TABLE 7

Number of Students Leaving the Program

Reason For Leaving	Grade 9	Grade 10	Grade 11	Total
Mainstreamed	0	0	1	1
Transferred to another school	11	15	1	27
Returned to native country	3	3	1	7
Dropped out due to employment	0	1	1	2
Dropped out for other reasons	12	6	1	19
TOTAL	26	25	5	56

PARENTAL INVOLVEMENT

-- The parents of 25 percent of the student participants will visit the program at least twice a year.

-- An estimated 25 community members and parents will participate in E.S.L. and G.E.D. classes.

-- The Parent Advisory Committee will meet four times a year to monitor the implementation of the program.

Parents of program students participated in several school-wide activities. Several parents took the G.E.D. (General Equivalency Diploma) and E.S.L. classes that were offered by the program on a weekly basis. The Parents' Association held cultural presentations on the final Sunday of each month. Five to ten parents of program students regularly attended the semi-semesterly meetings of the program's Parent Advisory Committee. They expressed a desire for a greater number of bilingual vocational and academic courses. The program has also employed parents in a variety of positions: paraprofessional, secretary, resource-room coordinator, and N.L.A. teacher. By successfully involving parents in so many ways, the bilingual program has contributed to the development of the community as well as to its own students' educational and social development.

STAFF DEVELOPMENT

-- The program staff will receive in-service training related to the development of literacy skills, linguistic and cultural sensitivity, and developing expertise in the areas of individualized instruction.

Staff-development activities took place in administration and in curriculum and resource development. Administrative and organizational matters were the subject of 37 meetings organized by the bilingual consultant throughout the year. They were attended by the project coordinator, project staff, language A.P.s and the principal. Through the Literacy

Assistance Project, New York BEMSC staff members helped teachers and other program staff members develop improved literacy education strategies and curricular materials. The project coordinator had also developed a contract for students which delineated their rights and duties in school and in the community.

Members of the program staff also attended a variety of conferences outside George Washington High School. A social studies faculty member presented a paper at a conference sponsored by Chemical Bank on issues affecting New York City's high schools. His discussion of the need for teachers to learn more about the culture of their students was so persuasive that Chemical Bank agreed to sponsor a trip to the Dominican Republic for six teachers. To learn more about the program's best-represented nationality, the project coordinator attended a conference on the Dominican Republic held at Seton Hall University. In May, the A.P. for foreign languages, the project coordinator, the high school counselor, and an E.S.L. teacher attended the High School Roundtable on Literacy sponsored by BEMSC-Hunter College. In addition, the project coordinator and ten teachers participated in a three-day workshop on teaching illiterate students organized by BEMSC-Teachers College. The project coordinator also attended a management-training session for Title VII project directors at Columbia University. And all members of the bilingual program's staff received training in the use of microcomputers: the project coordinator attended a session on computers at BEMSC-Hunter College; the teachers participated in a workshop on word processing at Teachers College; two paraprofessionals attended a computer course at the Bronx Technical Center; and the project secretary was trained to use the MacIntosh personal

computer by the program's bilingual consultant. To increase their knowledge and ability to contribute to the bilingual program, the project coordinator, one bilingual math teacher, and an N.L.A. teacher took Title VII-funded university courses during the fall and spring semesters.

IV. CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS

The Biliteracy Skills Development Program at George Washington High School completed its third and final year of operation in June 1985. The program offered students who were limited in both English and Spanish an opportunity to develop academically and socially within the high school environment. It used a program of intensive language instruction to enable semi-literate students to develop oral proficiency in English and literacy skills in both Spanish and English. Students took at least three daily periods of E.S.L. and two periods of Spanish during their first year in the program. During their second year, they took two daily periods of E.S.L. and one or two periods of Spanish. In their third year, they took one period of each subject per day. Consequently program students accumulated few of the credits in mathematics, science, and social studies necessary for graduation.

Although concern was expressed about the amount of time it would take students in the program to graduate, staff members maintained that in light of their limited prior educational experience the students were making rapid progress. According to the bilingual grade advisor, bilingual students were more highly motivated and had better school attendance records than the mainstream students, which a comparison of program with school attendance rates confirmed. Discussions with the project coordinator and a review of student records with the bilingual grade advisor indicated that, on the whole, program students were progressing academically. In 1985-86, program students met the program objectives in both E.S.L. and Spanish. In the spring semester, they also achieved passing rates in mathematics and

social studies as high as those of mainstream students, thus meeting the program objective in these areas, although not in science. Nevertheless, it was not uncommon to find repeaters in both E.S.L. and bilingual content-area classes.

The newly formed Literacy Assistance Project provided a great deal of support for the achievement of the program's goals. The Literacy Assistance Project provided a forum for the project coordinator, the A.P.s of various departments, teachers, and the principal to participate in regular meetings with the staff of the New York BEMSC. These meetings played a crucial role in the development of a more consistent philosophy of and methodology for teaching the program's semi-literate target population. A variety of staff development activities, both within and outside the school, also contributed to the development of a more cohesive program.

Several changes in personnel and in curriculum and resource development affected the program in 1985-86. A Language Assessment Battery (LAB) coordinator was hired to oversee LAB testing, and maintain LAB records. In addition, a new secretary was found for the bilingual program. The former one had graduated from C.U.N.Y. the previous June and started to teach native language arts in the bilingual program. In the fall, a new bilingual civics course was introduced as an elective in the social studies sequence. It was expected that in 1986-87, American history I and integrated math would be added to the bilingual curriculum. To add to the resources available to bilingual content-area teachers, the program purchased bilingual science, social studies, and math materials. In addition, the resource room coordinator organized the library and compiled for teachers a list of the bilingual books and materials that were avail-

able for classroom use. Three MacIntosh personal computers were purchased for the bilingual resource room; they were used primarily to meet the wordprocessing needs of bilingual program students, staff, and paraprofessionals.

During the year under review, the school's non-Title VII bilingual program became more visible and its students' achievements received greater recognition both within and outside the school. The community leadership role of two student organizations, the Graffiti Busters and the recently formed Pan American Club, have contributed greatly to this increased visibility. Although the majority of the students in these organizations were from the larger tax-levy program, some Title VII students did take part in these activities. This year a new bilingual honor roll was established on the fourth floor and five Title VII students were named. In addition, the school administration decided to create an honor school for both mainstream and bilingual honor students.

Parents of program students participated in a variety of school-wide activities, and indicated that they wanted more bilingual vocational and academic courses for their children. They were involved in the program's everyday functioning in a variety of ways.

In short, the project staff made significant progress in making the Biliteracy Skills Development Program coherent and well integrated during its third year of operation. Everyone agreed that it was vital and necessary to continue meeting the needs of the ever-growing population of semi-literate students who enroll in the school annually. The bilingual staff was committed to developing an ethos of hard work, discipline, and self-respect among its students. The process of acculturating them to the

American educational system was accomplished with a sensitive and empathetic understanding of their problems and needs, and with respect for their language and culture.

RECOMMENDATIONS

On the basis of several site visits, classroom observations, and interviews with program personnel, the evaluation team makes these recommendations:

1. Continued efforts at staff development across departmental lines are needed to create more consistent objectives, teaching strategies, and curricula for teaching semi-literate students. The creation this year of the Literacy Assistance Project went a long way toward meeting this need. Continuation of this project and/or similar cross-departmental efforts are encouraged. This might be accomplished by:

   -- Coordinating prep/free periods, so that teachers can work together on curricular materials, become aware of the kinds of lessons being planned for other classes, and integrate and reinforce each other's educational efforts.

   -- Similarly, the paraprofessionals should, if possible, be assigned to teachers who teach the same or related content areas. Perhaps once a month, time should be set aside from clerical duties to enable paraprofessionals to meet with teachers to discuss/review course content and select materials for individualized instruction.

2. The program and its students should have greater visibility within the school. Although there were significant improvements this year, efforts to increase the visibility of Title VII students within both the bilingual program and the school in general are needed. This could be accomplished through:

   -- Having bilingual and Title VII students work together to produce a bilingual newsletter. This could include interviews or oral histories on the migration experience and life in New York, what students miss or remember about Santo Domingo, their educational

experiences, etc.

-- Establishing a peer tutor program between the Title VII students and the other bilingual students.

-- Further efforts could be made to recruit Title VII students into established student organizations, such as the Graffiti Busters and the Pan American Club.

3. Greater efforts at tracking the progress and status of individual students in the Title VII program should be made. A more systematic follow-up effort would be useful in assessing both the achievement, progress, and problems of individual students and the program's overall effectiveness in meeting students' needs. An in-house evaluation by program staff (coordinator, teachers, paraprofessionals, A.P.s, grade advisor and counselor, and consultant) might be helpful in discovering which teaching strategies have succeeded and why. Although there have been many successes, the problem of repeaters in both language and content-area classes needs to be fully analyzed. Perhaps these issues could be discussed in an in-house staff development workshop.

4. Continued efforts to add to the limited curricular resources in the content areas are recommended. In collaboration with the departmental A.P.s, the project coordinator should continue seeking ways to acquire texts that are appropriate to this student population, and which they can use at home and in school. To deal with the lack of curricular materials in the content areas, the project coordinator, A.P.s, and teachers might contact other Title VII projects in New York City high schools that are serving similar populations in order to exchange information and materials.

5. Paraprofessionals play a critical role in the development of this program. Opportunities should be created for them to participate in professional meetings and conferences both within and outside of George

Washington. It is also urged that they be assigned to the classroom as much as possible.

6. In content-area classes in which the dual-language approach is used, it is important to reinforce content material in both languages in order to ensure student comprehension. This could be accomplished by making sure that students respond in both languages.

V. APPENDICES

APPENDIX A

Staff Characteristics: Professional and Paraprofessional Staff

Title/Function	Percent Time in Each Function	Education (Degrees)	Total Years Experience Education	Years Relevant Experience Bilingual/E.S.L./ Foreign Language
1 Project Director	100	B.A., J.D.	9	9
1 Secretary	100	H.S.	2	2
3 Paraprofessionals	100	H.S.	Average of 3	Average of 3
1 Grade Advisor	60	M.A.	6	6
2 Guidance Counselors	100	M.A.	Average of 18	Average of 18
2 Family Assistants	100	H.S.	Average of 5	Average of 5
3 E.S.L. Teachers	40/40/60	M.A.	Average of 7	Average of 7
6 N.L.A. Teachers	20/20/20 40/40/40	2 B.A. 4 M.A.	Average of 9	Average of 8
2 Math Teachers	20/100	B.A./M.A.	2/10	2/10
1 Science Teacher	100	B.A.	5	5
1 Social Studies Teacher	40	M.A.	1	1

APPENDIX B

Instruction in English as a Second Language[a]

Course	Number of Classes Fall	Number of Classes Spring	Total Register Fall	Total Register Spring	Course Description
Basic Literacy	2	2	40	36	Alphabet, Phonics, Writing
E.S.L. 1 Grammar (Lower Level)	2	2	35	34	Grammar, Phonics, Writing
E.S.L. 1 Reading and Writing (Lower Level)	1	1	20	19	Reading, Writing
E.S.L. 1 Grammar (Higher Level)	3	3	45	40	Reading, Writing
E.S.L. 1 Reading and Writing (Higher Level)	3	3	45	35	Reading, Writing
E.S.L. 3 Reading	7	-	140	-	Reading
E.S.L. 3 Grammar	7	7	145	140	Grammar
E.S.L. 4 Grammar	6	-	120	-	Grammar
E.S.L. 5 Grammar	3	3	55	115	Grammar
E.S.L. 6 Grammar (Transitional)	2	-	45	-	Grammar
E.S.L. 4 Listen/ Spkg/Reading/ Writing	6	6	120	115	Listen/Speak/ Write
E.S.L. 5 Listen/ Spkg/Reading/ Writing	3	3	51	46	Listen/Speak Write

APPENDIX C

Instruction in the Native Language[a]

Course	Number of Classes	Total Register	Course Description
Fall			
Remedial Spanish Writing	1	20	Grammar Reading, Writing
Remedial Spanish Reading	2	40	Grammar Reading, Penmanship
Spanish for Native Speakers	1	25	Grammar, Writing, Cultural, Level 3
Spanish for Native Speakers	1	33	Reading, Writing, Literature Level 4
Spanish for Native Speakers	1	20	Grammar, Writing, Literature Level 5
Spanish for Native Speakers	1	21	Grammar, Writing, Literature Level 6
Spring			
Spanish for Native Speakers	1	25	Grammar, Reading, Writing Level 3
Spanish for Native Speakers	1	33	Grammar, Reading, Writing Level 4
Spanish for Native Speakers	1	20	Grammar, Reading, Writing Level 5
Spanish for Native Speakers	1	21	Grammar, Reading, Writing, Cultural Level 6
Remedial Spanish Writing	1	20	Grammar Reading, Penmanship
Remedial Spanish Reading	2	40	Grammar Reading Penmanship

[a] A paraprofessional was present in all classes. New York City and program-developed curricula were used.

APPENDIX D

Bilingual Instruction in Subject Areas[a]
(Fall and Spring)

Course Title and Level	Number of Classes	Number With Para.	Total Register	Title VII Register	Percent of Eng. Used	Course Description
Fundamental Math	6	5	180	90	0	Division, Multiplication
Fundamental Math 2	5	5	170	50	35	Word Prob., Fractions, Areas
Business Math	1	0	30	2	0	Interest, Principal, Commercial Problems
Sequential Math I	2	0	60	20	0	Probabilities, Algebra, Geometry, Statistics
Algebra C	1	0	30	10	0	9th Year Regents Math
Human Biology	6	6	180	50	0	Human Body
General Biology	5	0	150	45	50	General Biology
Global History 1	6	3	204	60	25	World History, Ancient History
Global History 2	7	3	238	50	25	World History, Europe

APPENDIX D (continued)

Course Title and Level	Number of Classes	Number With Para.	Total Register	Title VII Register	Percent of Eng. Used	Course Description
Global History 3	2	0	70	5	40	Global History Europe, Asia
Typing Level I	1	0	30	10	20	Keyboarding Business Letters
Typing Level II	1	0	34	10	20	Keyboarding Business Letters
Art	1	1	34	5	50	Lettering
Music	1	0	34	2	80	Choir, Music Appreciation

[a] Non-credit bilingual civics course offered to program students in fall.